

**ABSTRACT**

The present invention relates to a method for transmitting binary data at a rate of  $R$  bits per second via an optical conductor of length  $d$ . A transmitter produces pulses of duration  $\tau$ , which is considerably shorter than the bit period  $1/R$  associated with the rate  $R$ . Owing to the dispersive characteristics of the optical conductor, these pulses are broadened on their path to the receiver to a value which is approximately equal to the bit period  $1/R$ . One advantage is that there is no a priori need to use a laser with a narrow spectral width to achieve a long transmission distance  $d$ .

Figure 2